

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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processing. Ameritech has stated that many of its processes are likely to involve extensive human intervention (Rogers, Response To AT&T Data Requests 2.32 and 2.33 In Illinois)

22. Equivalent information accuracy requires that the information exchange mechanism pass three related tests: First, the information exchanged must comply with an agreed upon data format and structure. Second, the exchanges must implement agreed upon business rules for interaction. Third, demonstrated end-to-end transaction integrity must exist. AT&T's experience is that Ameritech has focused exclusively upon the first aspect to the detriment of the later two.

23. Interfacing software must be prepared to receive, disassemble, transform and forward data to supporting business processes and systems. If the format and/or structure of the data do not match that for which the system was designed, the wrong activity might occur, or the intended processes may fail altogether. To avoid these problems, data format and structure must be agreed upon for all elements and properly implemented. National standards provide value in reducing costs and providing guidance in this area. Ameritech, however, has unilaterally elected to create its own interface specifications, which have been revised multiple times in the relatively short time that they have been available.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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24. Establishing how information will be exchanged, in the context of business activities, is equally as important as specifying the format and structure of the data elements. Both parties using an interface must understand how data will be "packaged" within messages that will cross the interface, the identity of the data elements that will and will not be provided, the sequence of messages that will be exchanged, and the business activities that will occur in response to the agreed upon message sets. The process of achieving this understanding is referred to as establishing "business rules." Without these business rules, chaos will reign at the interface because the ILEC and CLEC will not be able to communicate with each other or actions, expected as the result of the information exchange, will be unclear. Reading of the specifications delivered by Ameritech will not provide insight to governing business rules as Ameritech has already stated (Mickens, Response to AT&T Data Request 2.39 in Illinois). Rather AT&T must rely upon Ameritech to disclose these business rules or must deduce them through trial and error during intersystem testing. AT&T is currently engaged in this testing for a subset of Ameritech's interfaces.

25. The integrity of each end-to-end transaction must be assured as the information flows through all supporting systems that must process the information. This flow must be tested through all stages, including the initiation of the transaction, movement of the data elements through the CLEC operations support systems, transmission of the information across the interface, processing of the data within Ameritech's operations support systems, and subsequent return of data to the CLEC if appropriate. The users of the interface must have confidence that the

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

---

information flow is predictable and subject to replication. AT&T has not completed this testing. Likewise, it is reasonable to conclude that no other CLEC has completed such testing because Ameritech's has indicated no CLECs are using the services resale interfaces (Rogers Illinois Testimony, pp. 10, 11, and 15) and the same is true for UNE support interfaces, with the exception of ordering unbundled loops (*id.*, p.9). In fact, not even Ameritech uses these interfaces for its own local service operations (Rogers, Response to AT&T Data Request 2.40 in Illinois).

26. Assurance of end-to-end integrity typically entails the sending of comprehensive sets of test cases all the way through both parties' processes to validate that the expected exchange of information and business activity occurs. Load carrying capacity must also be established as part of assuring the end-to-end integrity of the interface. An interface that operates satisfactorily at low volume but "chokes" the flow of essential servicing information at market volumes will place the new entrants at a competitive advantage.

27. This testing process can be time consuming and tedious, but it is absolutely essential to enable quality customer servicing and to assure nondiscriminatory access. Ameritech simply claims that the performance will be nondiscriminatory "because the systems utilize the same underlying systems and data utilized by Ameritech" (Rogers, Response to AT&T Data Request 2.44 in Illinois) while totally discounting the fact that the queries submitted by the CLECs will not be handled in the same manner as are those submitted by Ameritech own personnel (Mickens, Response to AT&T Data Request 2.45b in Illinois).

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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28. Equivalent information timeliness requires two things. First, the elapsed time for a transaction, starting when an information request transaction is initiated until the time the agreed upon result is returned, is equivalent whether a CLEC or an Ameritech customer service agent is involved. If the CLEC customer service agent requests a telephone number from Ameritech, for example, the response time should be equivalent to that experienced by an Ameritech customer service agent making an equivalent request. Because Ameritech does not utilize these interfaces in support of its own local service operations, it is not clear how a CLEC could ever determine whether or not nondiscriminatory access is delivered by Ameritech.

29. Second, the information supplied to the CLEC must be of the same "vintage" or time of production that is available to Ameritech personnel. For example, if feature and service availability data is updated monthly for Ameritech personnel, then the CLECs should receive updates at the same time. Ameritech has yet to address even how performance for batch interfaces, where such periodic updates are delivered, will even be measured (Mickens, Response to AT&T Data Request 2.46e in Illinois).

30. Because each company likely will employ differing approaches to customer servicing, the sole use of traditional service performance measures directed at the end-customer experience is likely to be inadequate for assessing information interface performance. A new measurement will probably be required. Such a monitoring measure should be based on joint agreement, and may require Commission oversight to develop.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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31. One possible approach for transaction-based interfaces would be to establish standards for round-trip elapsed time for messages sent across the CLEC-Ameritech interface. CLECs need the ability to monitor their own experience and determine whether or not equivalent timeliness exists with respect to what Ameritech provides to itself.

32. In the case of batch interfaces -- those where large quantities of data are accumulated and delivered as files -- the timeliness standard applied can be the identical frequency of update as is provided to Ameritech personnel. If the CLEC desires less frequent feeds, the CLEC should also have that option.

**THE OSS INTERFACES PROPOSED BY AMERITECH**

33. The OSS interfaces proposed by Ameritech do not meet these tests for parity of access. In the first place, the interfaces to several of Ameritech's essential pre-ordering operating support systems were still not deployed in the field or available to CLECs as of mid-December 1996. Even assuming that those interfaces have now been deployed, those interfaces have never been used or tested by any CLEC.

34. Second, the specifications for several of Ameritech's proposed OSS interfaces have been frequently revised and are still being revised or clarified by Ameritech, so that CLECs are not yet in a position to design their systems to interact with Ameritech's systems so as to enable the CLECs like AT&T to enter the local market on a large scale.

35. Third, because of these and other problems, neither Ameritech nor AT&T can determine at this time from actual use whether the access delivered by Ameritech's OSS

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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interfaces will be adequate and nondiscriminatory. Nondiscriminatory access is not established by declaration. It can only be established by demonstration. Moreover, in the limited cases where an interface has been tested by AT&T, the Ameritech interface has fallen far short of meeting the nondiscriminatory access tests that I have discussed.

36. Furthermore, the interfaces that Ameritech has delivered for testing have addressed predominantly total service resale. No mechanized interfaces have been made available for testing by AT&T that address service delivery through the UNE platform (a combination of the local loop element, the local switching element, and the common transport element that was requested by AT&T). Interfaces must be made available that will handle services resale. UNEs and combinations of UNEs.

37. The testimony submitted by Ameritech in this case is also not clear as to whether all of the OSS interfaces proposed by Ameritech are presently available to CLECs. In supplemental rebuttal testimony filed in Illinois on Friday, December 13, 1996, and submitted in this case on Monday, December 16, 1996, Ameritech's witness Mr. Rogers states that Ameritech's proposed interfaces for a number of pre-ordering functions, including access to customer service records, access to telephone number selection and assignment, due date selection and access to information regarding changes in service order status, are still "under development" and are only "scheduled for commercial deployment" in December 1996 (Rogers Illinois Testimony, pp. 5, 15, 26). Mr. Rogers also states that the interfaces required for the provisioning of resold service is still not complete (id. at 11).

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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38. Similarly, the affidavit of Ameritech's Mr. Dunny, submitted in this case on December 16, 1996, states that Ameritech's interfaces for the pre-ordering, ordering and provisioning functions "are currently being upgraded" and "will be made available . . . on or before January 1, 1997" (Dunny Aff., pp. 31-32).

39. The affidavit of Mr. Mickens, on the other hand, also filed by Ameritech on December 16, 1996, states that all of these OSS interfaces are currently deployed by Ameritech (Mickens Aff., pp. 16-17, 19-20).

40. Even assuming that these operations support systems interfaces have now been deployed by Ameritech, however, that does not mean that those interfaces are operational. For something to be operational, it must be capable of being used. Despite the claims that its interfaces are presently deployed, Ameritech does not contend that any CLEC has ever used its pre-ordering, ordering or maintenance interfaces for transacting business (see Rogers Illinois Testimony, p. 15).

41. Even if Ameritech has successfully deployed interfaces for access to these operations support systems, their operability, and particularly their ability to operate in a nondiscriminatory manner, has plainly not been demonstrated.

42. Moreover, for the reasons I will describe later, Ameritech does not have a measurement plan adequate to demonstrate the delivery of nondiscriminatory access to its operations support systems, and there is certainly no evidence that the OSS access promised by Ameritech will in fact be nondiscriminatory in the marketplace.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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43. Nor is the lack of a sufficient measurement plan the only reason that I conclude that Ameritech's operational support systems access is not fully operational. Although Ameritech states that its interfaces are, or will be, operational, and many of its interfaces may be technically capable of transmitting and receiving bits and bytes in a particular format and syntax, I am not at all confident that nondiscriminatory access to OSS functionality will exist, or that CLECs will be able to fully utilize such functionality. AT&T is the only CLEC Ameritech identifies as having engaged in any form of testing of the operational support systems access (Rogers Illinois Testimony, p. 15), and the experience of AT&T certainly cannot be relied upon as a successful demonstration that nondiscriminatory access to OSS functionality is a reality today (see id. at 16-23 and Schedule 1).

44. In order to be truly available in any meaningful sense, an interface must be thoroughly tested and demonstrated to operate as intended under the conditions and volumes that are reasonably expected actually to occur in the marketplace. Thus Ameritech should be required to show not only that its proposed interfaces are deployed in the field, but that they have been shown to operate successfully with the electronic interfaces of other service providers at volumes of traffic that are reasonably anticipated to occur. Until that field testing has been done and operational experience gained, it is impossible to conclude that Ameritech has met its obligation to provide parity of access to its operations support systems.



**THE INADEQUACY OF AMERITECH'S TECHNICAL SPECIFICATIONS**

45. Although Ameritech has provided some limited technical specifications covering data elements and syntax for its proposed OSS interfaces to AT&T, those technical specifications do not answer all the technical or practical details that are required to establish a working interface (Mickens, Response to AT&T Data Request 2.39a in Illinois). The specifications certainly do not permit AT&T to field test the interface to determine whether it meets the three tests for parity that I discussed above.

46. The specifications serve only to narrow the areas requiring discussion. Subject matter experts from both companies will still need to work together to implement the interfaces. Technical specifications provide guidance, but they are often incomplete and subject to interpretation with respect to the applicable business rules. These gray areas can lead to major operational issues.

47. For example, Ameritech bases its service resale ordering interface on standards developed by the Ordering and Billing Forum (OBF) of the Alliance for Telecommunications Industry Solutions (ATIS). Within the relevant OBF standard, two specific messages exist for conveying customer order information. The 850 Message conveys the initial order information, and the 860 Message provides supplemental information. While data element content of the 860 Message is defined, there is no specific OBF guidance regarding the governing business rules. By that I mean the OBF does not say whether the 860 Message should convey only changed information or whether the 860 Message should convey the entire restatement of the order.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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48. Ameritech's interpretation is that the 860 Message must convey only changed information, while AT&T's preference is to deliver a restated order in the 860 Message. Until the parties agree on a common treatment of the message, AT&T cannot efficiently send supplemental orders to Ameritech even though the supplements issued by AT&T comply with the EDI national standards for ordering, the standard with which Ameritech claims to be following. Until the parties agree on treatment of the message, therefore, the interface is not operational, for all practicality, for orders requiring a supplement.

49. Ameritech incorrectly claims that this problem lies with AT&T because the Ameritech use of the EDI 860 transaction "is consistent with its use in other industries" (Mickens Illinois Testimony, p. 10). I cannot attest to the use of the 860 transaction in other industries, but within the telecommunications industry it is AT&T's experience that NYNEX, BellSouth, US WEST, Southwestern Bell, Bell Atlantic, SNET, GTE, and Sprint have all accepted the treatment of the 860 transaction which AT&T requested of Ameritech.

50. The result of Ameritech's position, from the viewpoint of AT&T, is that the ordering interface is not yet fully operational and that nondiscriminatory access to that OSS functionality is not being delivered by Ameritech.

**NONDISCRIMINATORY ACCESS MEASUREMENT**

51. In order to demonstrate that nondiscriminatory access is available and being delivered to potential CLECs, Ameritech must show, through measured performance experience of a meaningful set of CLECs, that nondiscriminatory access is being delivered for all operations

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

---

support systems related to pre-ordering, ordering, provisioning, maintenance and repair, and all aspects of billing.

52. The FCC has specifically encouraged state commissions to adopt reporting requirements related to assurance of nondiscriminatory access. (§ 311).

53. Appropriately defined and sufficiently robust sets of measurements are crucial to demonstrating that nondiscriminatory access to each OSS functionality is actually being delivered and that such nondiscriminatory access continues to be delivered on an on-going basis. Lack of a mechanism to monitor and, if necessary, ensure prompt re-establishment of nondiscriminatory access to OSS functionality will have a chilling effect on the emergence of meaningful competition in the provision of telephone exchange services. Nondiscriminatory access to OSS functionality, and to unbundled network elements in general, cannot merely be promised: it must be shown to exist across-the-board and monitored to assure it continues to be provided.

54. The delivery of nondiscriminatory access to Ameritech's operations support systems can only be verified and monitored by an appropriate measurement plan. Such a measurement plan is needed both to accomplish the initial validation and to provide on-going monitoring.

55. An acceptable measurement plan must embody at least four characteristics: (1) the plan must support statistically valid comparisons of CLEC experience to the experience of Ameritech's local service operations; (2) the plan must account for potential performance variations due to differences in service and activity mix; (3) the plan must monitor not only performance at

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

---

the service level, but at the interface level as well; and (4) the plan must be implemented and be producing results which demonstrate that nondiscriminatory access to OSS functionality is, indeed, being delivered across all interfaces and a broad range of resold services and unbundled network elements.

56. Although Ameritech has made some constructive proposals for a conceptual measurement plan, a substantial amount of additional work is necessary before any of the four criteria in the prior paragraph are satisfied.

57. As a first step, Ameritech should demonstrate that the measurement plan will gather and retain data in a manner that permits meaningful tests for statistically significant differences in performance. The measurement plan should permit each measure, if so desired, to be tested and a determination made, at a 95% confidence level, that the CLEC results are no worse than that experienced by Ameritech's own retail local service operations or any of its affiliates. The statistical test which determines a "no worse than" (rather than a test that only states you cannot conclude a difference exists) is important so that Ameritech Illinois can positively demonstrate the absence of discriminatory access to OSS functionality.

58. The ability to test performance and determine the absence of discrimination is probably the single most important purpose of the measurement plan. Unfortunately, Ameritech has offered no testimony regarding the statistical tests, if any, that it plans to employ to demonstrate that absence of discrimination. Ameritech, in fact, was non-responsive when asked to describe the

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

---

statistical testing applicable to its proposed measurement plan in Illinois (Mickens, Response to AT&T Data Request 2.46i in Illinois).

59. It is important that the measurement plan also account for service mix differences. When generalized measures are utilized, care must be taken to assure that they are sufficiently discrete to permit meaningful comparisons to be made. When I say discrete, I mean that a capability must exist to group and compare performance measures along dimensions that reflect commonality of attributes likely to be correlated with expected differences in performance.

60. For example, installation intervals for complex business orders are likely to be substantially longer than the installation interval for single line residence basic local service. Therefore, a due date performance measure that combines the business and residence categories into a single reported result could be misleading.

61. The example below illustrates this point:

	<b>Installation Interval (days)</b>	<b>% Orders</b>	<b>wtd Component (days)</b>
<b>Company 1</b>			
RES SINGLE BASIC LOCAL	4	15%	0.60
SERVICE COMPLEX BUS	15	85%	12.75
<b>Average Installation Interval</b>			<b>13.35</b>
<b>Company 2</b>			
RES SINGLE LINE BASIC			
LOCAL SERVICE	7	60%	4.20
COMPLEX BUS	20	40%	8.00

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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**Average Installation Interval**

**12.20**

62. As can be seen from this preceding example, if only the average result across all services is compared, one would falsely conclude that Company 2's performance was superior to that of Company 1. In reality, however, Company 2 has worse performance for both categories of service. The difference in the average result is due to the differing product mix. It is safe to assume, at least early in the development of competition, that CLECs and Ameritech will have significantly differing product mixes. Thus, every effort should be made to disaggregate product level measures so that meaningful comparisons can be made.

63. AT&T proposes that the level of product detail outlined in Attachment I (previously submitted to the Illinois Commerce Commission as part of my supplemental testimony) should be established as the minimally acceptable level of product disaggregation for the Ameritech measurement plan. In addition, because new products will likely be introduced and others will decline and be withdrawn, the product detail should be periodically reviewed, probably annually, to assure that measures reported are meaningful. Reporting of measures at a lesser level of product detail would be acceptable, provided that the underlying data is maintained at a very granular service detail and, upon request and subject to the appropriate proprietary protection, a CLEC could sponsor an independent audit of metrics at the very discrete service level detail.

64. It is difficult to determine whether the proposed measurement plan of Ameritech addresses the issue of product mix variation from the limited amount of data supplied.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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The prototype reports reflect only a very limited level of product disaggregation -- POTS, subrate, and high capacity services. Such a level of disaggregation is less detailed even than the level at which Ameritech details its date due commitments in the information supplied to potential resellers (Due Date Intervals, Ameritech Information Industry Services Resale, Issued by: Resale Support Staff, Revised September 30, 1996). Certainly these proposed levels of product detail are still too aggregated. Due to the lack of detail in the filed information, I can only assume that Ameritech attempted to partially address the impacts of product mix, that I discussed earlier, by comparing the metric to a "target" or an "agreed upon" level. Such an approach may be workable for internal purposes of a single company.

65. When comparisons between companies must be made for the purposes of determining nondiscrimination, however, that approach is inadequate. The comparison of CLEC performance to a target is useless for purposes of determining nondiscrimination unless both the CLEC and ILEC performance are reported in comparison to the same target level. Even making a comparison of both CLEC performance and Ameritech's performance to an identical target level and then reporting only the percentage not meeting the target provides very little information of value for purposes of determining nondiscrimination. Such comparisons may even be misleading, unless the entities being compared have identical, or at least very similar, deviations in their experiences.

66. The following example demonstrates this point, again using illustrative data:

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**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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Order	Installation Performance by Order (days) Company 1	Company 2
1	3	3
2	4	3
3	4	3
4	5	10
8	5	10
6	5	10
7	5	10
8	3	3
9	3	3
10	3	3
Average	4	5.8
Target	3	3
% Exceeding Target	60%	40%

67. In this preceding example, use of the "% exceeding target" figure would falsely lead an observer to the conclusion that Company 2 is achieving substantially better performance (in the case of this example, exceeding target is poorer performance). In fact, the performance for Company 2 when it is poor, is much, much worse than Company 1 and is never better than the best performance of Company 1. The wide variation in performance causes this situation and is the Achilles Heel of the use of "% exceeding target" measurement.



**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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68. This example reflects a situation that is actually likely to occur. It is reasonable to expect that the experience of CLECs will be much more variable, because of the newness of the support mechanisms and lower level of activity, than that of Ameritech. Therefore, measures similar to "% exceeding target" and "% exceeding agreed upon intervals" should be avoided in favor of actual measures of performance that are appropriately discrete and that include the actual mean performance along with a statistical measure of variation around the resulting mean for the measure

69. It is also important to account for the activity mix in any measurement plan. The activity mix consideration is similar, in many respects, to the service mix issue. Many types of activities may be involved within the process of successfully completing a single business task. As a simple example, service repair may in some cases involve a premise visit, while in other cases remotely managed restoration is possible. Whether or not a premise visit is required will impact upon the expected (and actual) restoration interval, regardless of the service being supported.

70. The example below, illustrates how the frequency with which a premise visit occurs influences an aggregated measure for the restoration interval:

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

---

	<b>Restoration Interval (hours)</b>	<b>% Tickets</b>	<b>wtd Component (hours)</b>
<b>Company 1</b>			
PREMISE VISITS REQUIRED	8	40%	3.20
NO PREMISE VISIT	3	60%	1.80
<b>AVERAGE RESTORATION INTERVAL</b>			<b>5.00</b>
<b>Company 2</b>			
PREMISE VISITS REQUIRED	8	60%	4.80
NO PREMISE VISIT	3	40%	1.20
<b>AVERAGE RESTORATION INTERVAL</b>			<b>6.00</b>

71. As this preceding illustration demonstrates, even where two companies are experiencing the same performance at the activity level, the average performance can look very different due to variations in the mix of key activities. For this reason, Ameritech should provide disaggregated performance measures when differences in the underlying mix of activities could reasonably be expected to influence the aggregate measures.

72. Areas where this can be expected to occur are outlined in Attachment II (previously submitted in Illinois as part of my supplemental testimony). With the exception of billing and network related activity measures, which Ameritech does not address at all, the key

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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measures tend to be in fairly close alignment. Ameritech does not discuss whether or not additional attributes relating to activity drivers will be captured and stored so that meaningful comparisons of results can be made.

73. The same problem of using "% exceeding target" and similar measures, which I have discussed for the service mix, also apply to the activity mix. Again, actual measures of the mean performance are preferable, combined with some measure of statistical variation, such as a 95% confidence interval for the mean of the measurement reported.

74. Measures must also be established at the unbundled network element level as well as the service level. As the FCC stated in its Order of August 8, 1996 (§ 525) delivery of nondiscriminatory OSS access is a requirement not only for services resale but also for unbundled network elements. As I mentioned earlier in my statement, the FCC is looking to the state commissions to establish measurements which demonstrate that nondiscriminatory access is and continues to be delivered (§ 311).

75. Service level measures, if properly defined, may help detect discriminatory behavior relating to the support of services resale and, to a lesser extent, the use of unbundled network elements in combination. However, detecting discriminatory conditions and assuring the absence of discrimination at the network element level requires more focused measures. These measurements will typically be very limited in scope and will not be service oriented but rather will be oriented to access delivered to specific unbundled network elements, such as access to OSS functionality.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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76. The measures proposed by Ameritech for operations support systems are not adequate to determine whether nondiscriminatory access is being provided to competitors.

77. Ameritech has provided very little detail regarding its proposed performance measures for access to operations support systems. Only three measures are listed for the OSS unbundled element -- platform availability, transaction accuracy, and business function completion window -- and only a generic heading of operational support systems is shown. While the proposed measures sound like they address the tests that I have proposed for nondiscriminatory access -- equivalent availability, accuracy and timeliness -- the descriptive material that Ameritech has placed in the record is far too limited to draw any conclusions regarding the effectiveness of the proposed measures.

78. First, it is not clear that Ameritech intends to monitor and report results for each interface (Mickens, Response to AT&T Data Request 2.46b in Illinois). As Mr. Mickens notes in his testimony, there are no less than nine different interfaces (Mickens Aff., p. 17). Each supports a very different but critical process. It makes no sense to allow Ameritech to construct a set of measures where good availability performance on the part of, for example, a billing interface could mask the very poor performance on the part of another interface, such as maintenance and repair.

79. Perhaps Ameritech intends to provide reported measurement for each of the nine interfaces. However, I cannot draw that a conclusion that such a commitment exists based on the testimony that has been offered to date. For example, in defining the calculation for platform

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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availability, the reference is to interfaces which indicates to me an intent to combine all interfaces into a single reported measure (Mickens Illinois Testimony, Schedule 5, Section 3, p. 1).

80. The Commission should assure itself that Ameritech will provide separately reported comparative measures for each of the nine interfaces that Mr. Mickens identified (Mickens Aff., p. 17) -- pre-ordering transactional interface (EDI), pre-ordering batch interface (file transfer), ordering transactional interface (EDI), ordering batch interface (ASR), provisioning, maintenance and repair, usage billing information (EMR), services resale billing information (AEBS), and UNE billing information (CABS).

81. Beyond measuring and reporting results for each interface, all the measures need to be better defined and further refined. While I can understand Ameritech's desire to quickly move through these proceedings, the establishment of a meaningful measurement plan is an obligation that the FCC squarely places upon this Commission and such a measurement plan is to critical safeguarding the development of competition. The measures ultimately adopted by this Commission will represent the only on-going means to promptly assess whether the requirement of nondiscriminatory access is being met. It would be imprudent to simply accept, on faith, Ameritech's unilateral proposal of such key measures and their definition.

82. Ameritech's proposed platform (not to be confused with the UNE platform, a combination of loop, local switching, and common transport requested by AT&T) availability measure also needs to be revised. The proposed platform availability measurement is calculated by dividing the "time the OSS interfaces are not available by the total time available" (Mickens Illinois

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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Testimony, Schedule 5, Section 3, p. 1). I assume that the definition of "available" is that the interface under consideration is incapable of processing transactions. Ameritech did not provide that critical definition.

83. Given that understanding, the platform availability measure needs to be modified to reflect at least a differentiation of business hours (e.g., 8:00AM to 5:00PM) versus non-business hours performance. For example, if the pre-ordering interface is unavailable for three hours between 8:00 AM and 5:00 PM on a business day, that would have much greater competitive market impact (i.e., customer dissatisfaction) than if the same interface were to be unavailable for the same amount of time from 2:00AM to 6:00AM on a Sunday. Ameritech should state availability measures separately for "within normal business hours" and "outside normal business hours" for each interface in order to address the situation I just described.

84. In addition, while a comparison to Ameritech's own experience is proposed, it is not at all clear how this will be accomplished for the platform availability. Ameritech's retail local exchange service support agents and processes do not currently use any interface in common with the CLEC (Rogers, Response to AT&T Data Request 2.40a in Illinois). Ameritech, therefore, needs to clarify how the availability measure will be determined with respect to Ameritech.

85. Modifications or clarifications also appear to be necessary with respect to Ameritech's proposed accuracy and timeliness measures. Again, Ameritech has provided only very limited descriptive material, but based upon what is available, the measures are far too aggregated. Mr. Mickens states that Ameritech "is committed to assuring that the availability, transaction

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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accuracy and timeliness of these interfaces are at parity with the internal use of these same functions" (Mickens Illinois Testimony, p. 23). By explicitly using the word "transaction" in the statement of Ameritech's commitment, I understand Ameritech to mean that both accuracy and timeliness will be measured for key transactions as opposed to only providing a meaningless measure of a mixture of transactions. If that is not Ameritech's intent, then serious questions regarding inadequacies of the measures would exist as I just discussed for platform availability. Indeed Ameritech has indicated that the data will be collected at the transaction level but reported only at the aggregate level (Mickens, Response to AT&T Data Request 2.46d in Illinois).

86. Furthermore, each transactional measure should be specific to a single interface. The accuracy and timeliness of transactions is crucial to quality execution of the process supported by the interface. It is the successful execution -- in terms of both timeliness and accuracy -- of these transaction that will permit CLECs to provide customer servicing that is competitive with that of Ameritech. Because of the varying types of transactions, the differing intensity of use and differing times involved for processing, monitoring measures that aggregate all transactions would be virtually useless.

87. Assuming the CLECs can monitor appropriate transactional measures for the performance they experience, they will still lack the comparable Ameritech measures necessary to determine whether or not the OSS access is nondiscriminatory. Therefore, Ameritech must be required to provide appropriate transaction level measures of both quality and timeliness.

**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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88. The transactional measures are specific to each interface and can become quite extensive. Nevertheless, certain key measures, undoubtedly, can be identified that balance the need to monitor the delivery of nondiscriminatory access to OSS functionality without becoming overly burdensome. Moreover, many of these or similar measures are used by customer focused businesses to assess performance of their business processes.

89. The basic measure that AT&T believes will initially serve the purpose of monitoring transaction accuracy and timeliness, for each interface, are listed in Attachment III (previously submitted to the Illinois Commission as part of my supplemental testimony).

90. It is possible that the actual values for such transactional measures could be considered proprietary. If the CLECs or Ameritech perceive that such information is proprietary, then an alternative means for reporting actual measures must be established.

91. For example, the individual companies could submit their individual performance to an unaffiliated entity that is bound by appropriate non-disclosure agreements. That entity could review and analyze the data and provide report cards to the Commission and appropriate individual CLEC report cards. The report card could show, for each transactional measure, a simple indication whether, at a 95% level of confidence, that the performance experienced by the CLEC is no less than that experienced by Ameritech.

92. Assuming cooperation by industry participants, the analysis process does not seem overly complex. Because of the criticality of the information to all parties, if cost



**MPSC CASE NO. U-11104**  
**AFFIDAVIT OF . MICHAEL PFAU**

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recovery is an issue, then the costs of the "report card" should be recovered in a competitively neutral manner.

93. Naturally, the implementation details would need to be worked out. It seems reasonable to expect that a team of industry representatives could devise a mechanism for reporting performance, funding the work and submit a plan for Commission approval in a relatively short time frame. Naturally clarity and consensus regarding what is actually to be measured and reported would be required as an input.

94. Although the above discussion has focused only on the proposed OSS and service level measures, there are other measures relating to unbundled network elements that should also be addressed. Ameritech is obligated to provide nondiscriminatory access to all unbundled network elements and to combinations of UNEs that CLECs request and that are technically feasible to provide. There is no limitation, when the FCC looked to the state commission for input regarding measurements, that any form of access to unbundled network elements was excluded from monitoring. Accordingly, Ameritech must provide meaningful tracking that demonstrates nondiscriminatory access is indeed being delivered where UNEs are employed by a CLEC, whether used individually or in combination.

95. The testimony of Mr. Mickens shows a prototype for a measurement plan addressing unbundled loops, SS7 links, operator services and directory assistance (Mickens Illinois Testimony, Schedules 6, 8, 9 and 12). With the exception of the unbundled loops, the proposed measurements do not even begin to address more than a single dimension of the three-part test for